

Application No. 10/521076  
Reply to Office Action of December 13, 2005

Docket No.: 09086-00218-US

### **REMARKS**

Applicant respectfully requests reconsideration in view of the amendment and following remarks. The applicant amended claims 4 and 12 by replacing the term "of aluminoxane type" by the respective definition on page 25 line 23 through page 26 line 11 of the specification. The applicant has amended claims 6 and 13 as suggested by the Examiner in order to overcome the 35 U.S.C. 112, second paragraph rejection.

Claims 4-7, 10, 12-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 1-7 and 9-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kristen et al. U.S. Patent No. 6,420,301 ("Kristen") in view of Söling et al. U.S. Patent No. 6,500,907 ("Söling"). The applicant respectfully traverses these rejections.

#### **35 U.S.C. 112, Second Paragraph Rejection**

Claims 4-7, 10, 12-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The applicant believes that the claims as amended are in compliance with 35 U.S.C. 112, second paragraph. For the above reasons, this rejection should be withdrawn.

#### **35 U.S.C. 103(a) Rejection**

Claims 1-7 and 9-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kristen in view of Söling.

An object of Kristen is to develop a metallocene complex which offers technical advantages in the polymerization, shows a high incorporation of comonomers, and affords a high molar mass (see col. 3, lines 7-12). Furthermore, the metallocene should be capable of catalyzing

the preparation of isotactic polypropylene with a high molar mass (see col. 3, lines 13-15).

Additionally, the structure of the metallocene should be prepared in a technically simple matter and that during preparation only the rac-form is generated (see col. 3, lines 16-20).

In contrast, the object of the present is to enhance the polymerization activity of the supported catalyst system. This problem is solved by the use of two different organometallic compounds as shown in example 1 and comparative example A. There is no hint in Kristen that by reacting the selected organo transition metal compounds with at least two different organo metallic compounds instead of only one organo metallic compound the activity may be enhanced by about 2.5 times (8.1 kg of PP/g of catalyst compared to 3.1 kg of PP/g of catalyst). The comparison shows the unexpected results achieved by using a mixture of two different organo metallic compounds (trimethyl aluminum and triisobutyl aluminum compared to only trimethyl aluminum).

The Examiner relies upon Sling for teaching to use more than one organometallic compound. Sling describes a catalyst system comprising aluminum fluoride as an activator (see the abstract). The passage the Examiner refers to (col. 1, lines 36-45) concerns a catalyst system cited as the state of the art (DD 265 150 A1) in Sling. The applicant has informed the undersigned that the object of DD 265 150 A1 is to provide a catalyst for polybutadiene including a high amount of 1,4-cis Polybutadien. The object of this invention is not to improve the activity of the catalyst system. As DD 265 150 A1 deals with the stereoselectivity of polybutadiene, a person skilled in the art would not take the disclosure of this document if he intends to provide a catalyst system with improved productivity. Furthermore, there are not used two organometallic compounds required in claim 1 of Sling. Indeed, only in the case of Ni carboxylate  $AlEt_3$  and  $AlF_3$  are used, in cases of Ni-bis-cyclooctadiene or Ni-cyclododecatriene only  $AlF_3$  is used as

can be taken from the examples 1 to 3 on page 2. This means that only in the first case and only one organometallic compound is used. In the other cases there is no organometallic compound used at all. Based thereon a person skilled in the art would not come to the idea to use two organometallic compounds to improve the catalyst activity.

According to Sling the object of this invention is to provide a catalyst system which makes it possible to use customary cation-forming compounds commonly employed in preparative organic chemistry. According to this document the organic transition metal compound is firstly combined with the cation-forming compound C) as may be taken from the examples. Later  $\text{AlF}_3$  and optionally a compound D) may be added to the mixture.

This is in contrast to the present invention. According to the present invention the organic transition metal compound is firstly combined with a mixture of two organometallic compounds. After that the cation-forming compound is added. In Sling et al. no hint to the order of the steps is found nor any suggestion to use a combination of two organometallic compounds to improve activity of a catalyst system.

Indeed, it was not obvious for a person skilled in the art at the time the invention was made that a catalyst system which comprises two different organometallic compounds is more active (i.e. produces 2.5 times more polypropylene product) than a catalyst system which comprises only one of the organometallic compounds in the same amount as the two organometallic compounds together as shown in example 1 and example A of the present invention (see pages 30 and 31 of the specification).

The Examiner must consider the references as a whole, In re Yates, 211 USPQ 1149 (CCPA 1981). The Examiner cannot selectively pick and choose from the disclosed multitude of parameters without any direction as to the particular one selection of the reference without

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**proper motivation.** The mere fact that the prior art may be modified to reflect features of the claimed invention does not make modification, and hence claimed invention, obvious **unless the prior art suggested the desirability of such modification** (In re Gordon, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984); In re Baird, 29 USPQ 2d 1550 (CAFC 1994) and In re Fritch, 23 USPQ 2nd. 1780 (Fed. Cir. 1992)). In re Gorman, 933 F.2d 982, 987, 18 USPQ2d 1885, 1888 (Fed. Cir. 1991) (in a determination under 35 U.S.C. § 103 it is impermissible to simply engage in a hindsight reconstruction of the claimed invention; the references themselves must provide some teaching whereby the applicant's combination would have been obvious); In re Dow Chemical Co., 837 F.2d 469, 473, 5 USPQ2d 1529, 1531 (Fed. Cir. 1988) (under 35 U.S.C. § 103, both the suggestion and the expectation of success must be founded in the prior art, not in the applicant's disclosure). The applicants disagree with the Examiner why one skilled in the art with the knowledge of the references would selectively modify the references in order to arrive at the applicants' claimed invention. The Examiner's argument is clearly based on hindsight reconstruction.

Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention absent some teaching, suggestion, or incentive supporting this combination, although it may have been obvious to try various combinations of teachings of the prior art references to achieve the applicant's claimed invention, such evidence does not establish prima facie case of obviousness (In re Geiger, 2 USPQ 2d. 1276 (Fed. Cir. 1987)). There would be no reason for one skilled in the art to combine Kristen in view of Suling. For the above reasons, this rejection should be withdrawn.

In view of the above amendment, applicant believes the pending application is in condition for allowance.

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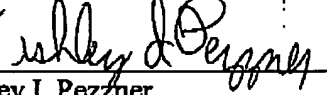
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A three month extension fee has been paid. Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 03-2775, under Order No. 09086-00218-US from which the undersigned is authorized to draw.

Respectfully submitted,

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